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GOVERNMENT OF PUNJAB

DEPARTMENT OF LOCAL GOVERNMENT

Local Government-4 Branch

(Punjab Municipal Bhawan, Sector 35-A, Chandigarh)

NOTIFICATION

The 30th January, 2023

No. 5/27/2022-2lg4/47.—Government of India (GoI) has launched AMRUT 2.0 with a vision to make all cities water secured and to provide safe and adequate drinking water to all in urban areas. One of the admissible components is 24x7 water supply under AMRUT 2.0. All AMRUT Cities are mandated to implement 24x7 Water Supply in at least one ward or one District Metering Areas (DMA) with 2000 households. Projects costing up to 20% of the project fund allocation for water supply projects in AMRUT cities may be taken up for 24x7 water supply. Additional funding for such projects will be admissible in form of reform incentive.

The Central Public Health and Environmental Engineering Organisation (CPHEEO) is a technical wing of the Ministry of Housing and Urban Affairs, Govt. of India and assist the Ministry in the technical matters related to urban water supply and sanitation including solid waste management & storm water drainage systems in the country.

In view of the above, Ministry of Housing and Urban Affairs (MoHUA), Govt. of India, has constituted the National Task Force (NTF) under the chairmanship of Adviser (PHEE), CPHEEO, vide its order No. Q-12011/8/2021-CPHEEO, dated 22 April, 2022 to disseminate the knowledge and extend handholding support (and capacity building) to States and Cities including promotion of the National and International best practices on 24x7 water supply systems. Now, it is required to establish State-level Task Force (STF) and City-level Task Force (CTF)

State-level Task Force (STF)

The State Level Task Force (STF) on 24x7 water supply systems for continuous interaction and handholding for scaling up of 24x7 water supply projects is constituted with the following members for Atal Mission for Rejuvenation and Urban Transformation (AMRUT)-2, with immediate effect

S.No.	Description	Nomination
1	Engineer-in-Chief cum Technical Advisor, Punjab Water Supply & Sewerage Board (PWSSB)	Chairman
2	Chief Engineer (O&M), Local Government, Punjab	Member
3	Chief Engineer, Department of Water Resources, Punjab	Member

4	Professor of department of Environmental Engineering (to be nominated by Punjab Engineering College (PEC), Chandigarh)	Member
5	GIS Expert (Senior Town Planner), Local Government , Punjab	Member
6	Hydraulic Modeling Expert (to be nominated by Department of Water Resources, Punjab)	Member
7	PPP Expert (to be nominated by Punjab Infrastructure Development Board)	Member
8	SCADA / Automation Expert (to be appointed by Department of Water Supply & Sewerage Board, Punjab)	Member
9	NGO related to water supply at city level (to be nominated)	Member
10	Executive Engineer, Punjab Water Supply & Sewerage Board (PWSSB), Head office	Member Secretary & Coordinator

The chairman may invite /co-opt any official or non-official member as Special Invitee including foreign expert. The force may also form sub-committee (s) within, to examine theme wise or region-wise issues.

The terms of reference of State Level Task Force (STF) on 24x7 water supply projects are enclosed as **Annexure I.**

City-level Task Force (CTF)

The City Level Task Force (CTF) on 24x7 Water Supply for planning and implementation or scaling up of 24x7 water supply projects for Atal Mission for Rejuvenation and Urban Transformation (AMRUT)-2 in the respective cities, with the following members is constituted with immediate effect.

S.No.	Description	Nomination
1	Superintending Engineer (O&M), Municipal Corporations, Superintending Engineer Municipal Committee or his representative	Chairman
2	Executive Engineer, Regional offices of Punjab Water Supply & Sewerage Board (PWSSB)	Member
3	Senior Geologist,(to be nominated by State Ground Water Department, Punjab	Member
4	Professor of department of Environmental Engineering (to be nominated by Regional Engineering College /Govt. college of the city)	Member
5	GIS Expert/ Hydraulic Modeling Expert (to be nominated by Department of Water Resources, Punjab) at city level	Member
6	Executive Engineer (electrical), Municipal Corporation/Council	Member
7	PPP Expert (to be nominated by Commissioner)	Member
8	NGO at city level (to be nominated by Commissioner)	Member
9	Executive Engineer, Municipal Corporations/Councils	Member Secretary & Coordinator

The terms of reference of City Level Task Force (CTF) on 24x7 water supply projects are enclosed as **Annexure II.**

Chandigarh

The 27th January 2023

VIVEK PRATAP SINGH, IAS

Principal Secretary to Government of Punjab

Annexure I**State Level Task Force (STF)**

The terms of reference of State Level Task Force (STF) on 24x7 water supply projects are as under:

The chairman may invite /co-opt any official or non-official member as Special Invitee including foreign expert. The force may also form sub-committee (s) within, to examine theme wise or region-wise issues.

The STF shall:

- Assess the number of AMRUT cities in their respective States/UTS and monitor the cities which will be implementing 24x7 water supply projects and regularly interact with National Task Force
- Support cities in establishing a City-level Task Force (CTF) on 24x7 water supply system and extend handholding support.
- Organize State/region wise meeting inviting all the City Engineers for AMRUT cities for handholding and dissemination of knowledge on 24x7 water supply.
- Emphasize on the immediate goals and need for implementation of 24x7 Water Supply in AMRUT Cities, in at least one ward or one DMA or District Metering Areas with 2000 households as envisaged under AMRUT 2.0.
- Organize the capacity building program and training to all the respective engineers/ staff working in the cities regarding 24x7 water supply..
- Ensure that all the cities have sustainable and 95% reliable water source. To ensure this, members of STF shall take up site visits as and when required
- Disseminate various components for implementation on 24x7 water supply brought out in the "Guidelines for Planning, Design and Implementation of 24x7 Water Supply Systems" and revised Manual on Water Supply and Treatment, to be published by the Ministry.
- Identify and study the national and international best practices of 24x7 water supply from the viewpoint of effectiveness, efficiency, sustainability, impact and share the success and failure experiences. The service delivery models, O&M, community engagement, institutional setup, adopted technology and lessons applicable/learnt to Indian cities will be identified and shared with the cities in the states.
- Extend handholding support to cities in preparing City Water Balance Plan, Detailed Project Reports (DPR)s, and reduction in Non-Revenue Water (NRW)
- Advise cities in setting up Non-Revenue Water (NRW) cells in all AMRUT Cities in the State 12. Standardize the rate for works relating to surveying and hydraulic modelling.
- Standardize the rate of works relating to surveying and hydraulic modeling, SCADA implementation etc and DPR preparation and request cities to maintain uniform rate of charge across the State/UT
- Advise cities to undertake the initiatives of capacity building, institutional strengthening of utilities, and facilitating the twinning program for Cities / ULBS within and outside the Country
- Monitor, city's 24x7 water supply projects on the Web Portal which will be developed by CPHEEO to maintain data on digital mode and also monitor MIS on 24x7 Water Supply Systems.
- The duration of the STF shall be initially for 3 years (2022-2024) and will be extended till completion of AMRUT 2.0 B.

Annexure II**City Level Task Force (CTF)**

The terms of reference of City Level Task Force (CTF) on 24x7 water supply projects are as under:

- Shall organize the training to engineers and their staff working in the city regarding 24x7 water supply by explaining how to implement 24x7 Water Supply in at least one ward or one DMA or District Metering Areas with 2000 households.
- Implement Model RFP by inviting tender for appointing the consultant for city who will do major works/activities required for preparation of the DPR for executing the 24x7 water supply project. Appoint the consultant for carrying out planning of city water supply, GIS based survey, designing water supply networks, preparation of Detailed Project Report (DPR), preparation of draft tender papers, help city administration to float tender for construction of the project of converting existing intermittent system of a city to 24x7 continuous water supply scheme. After appointing agency for construction work, performing duties of Project Management Consultant (PMC) till commissioning of the project, uploading of all the information to the proposed GIS based web portal will be the responsibility of the appointed consultant.
- monitor the activities that come under the duties of the appointed consultant who will be responsible for all the works till commission of the regular major works pertaining to 24x7 water supply.
- prepare GIS mapping of water supply infrastructure for the operational zone of the respective DMAs/ city. Design the transmission main from water works or clear water sumps to the overhead reservoirs and water distribution network in the operational zone/city
 - a) To ensure that maps of water supply infrastructure of the operational zone are available with them.
 - b) Operational Zones/Cities may have proper digitised map of the Water supply network
 - c) Cities may have CAD data in form of "As-Built-Drawings" of water supply network for the Operational Zone
 - d) Need to adopt a GIS strategy to convert their existing data of network into a GIS ready format. The Maps need to be properly Geo referenced using Geographic Control Points (GCP)s collected in the city.
 - e) Need to digitise the ward boundaries and convert them to GIS format with attributes of ward wise area and census population of last 5 decades.
 - f) City land-use maps for the Operational Zone/City should be created by taking help of City Development Plan (CDP)
 - g) Should direct the city engineer, through their GIS cell, to geo reference these maps and get them converted to GIS format, as most of the cities have their maps of water supply scheme including Transmission and Distribution network on AutoCAD format.
 - h) Condition assessment of the existing pipelines and valves should be carried out. In GIS mapping, the usable existing pipes should be shown and considered in the design.
- Ensure that the city has perennial sustainable water source with 95% dependability.
- forecast population for intermediate and ultimate stage of 15 years and 30 years, respectively ahead of base year, base year being expected year of commissioning of the proposed project. The Population forecast shall be done ward wise by considering the ward wise population density and equivalent area method for the Operational Zone/City.

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- Ensure that the distribution system is designed with peak factor of 2.5 and all pipelines from source and that of the distribution system are designed for projected demand of ultimate stage for the Operational Zone/City.
 - Ensure that the transmission mains which are the main lines of the project shall be designed properly by optimizing the capital and energy
 - Ensure that the GIS based hydraulic model is prepared showing the existing and proposed new pipelines and the newly planned service reservoirs.
 - Ensure the following for distribution system:
 - a. There is one operational zone per service reservoir/pumping station.
 - b. All the proposed district metered areas (DMA)s are hydraulically discrete.
 - c. Boundary of the operational zone should be so decided that the service reservoir would not get empty nor overflow.
 - d. The distribution pipe network is for existing as well as newly proposed pipes required for 100% coverage in the proposed DMA.
 - e. After running the model, the nodal pressures are checked for required heads (say 17m for cities with population more than 1 Lakh and 12m for cities with population less than 1 lakh) and the velocity of flow in pipes shall not be more than 3m/s.
 - f. House service connections are given for pipes having diameter more than 100 mm. For this purpose, additional rider pipes should be shown and included in the design of the distribution system.
 - g. Critical points such as nodes of highest elevation and the farthest place are shown in the GIS based distribution maps. These points are required for the design of the SCADA system.
 - h. Wherever road width is 6m and above, pipeline on both sides should be laid.
 - Ensure the following with respect metering
 - a. There is 100% consumer metering
 - b. Each meter is GIS tagged
 - c. Tariff is with telescopic rate based on volumetric consumption.
 - d. Bulk meters are installed at all strategic and suitable places so that NRW computation is possible, and its reduction becomes possible.
 - e. All bulk meters are connected to the SCADA system.
 - f. For commercial, industrial and societies of high-rise buildings, automatic meter reading (AMR) meters are planned.
 - g. The required control valves (FCVs/ PRVs for hilly areas) are planned for designed distribution of water.
 - h. WTP, MBRS, ZBRS (Zonal Balance Reservoir), ESRS, pumping stations are located on all season roads and the roads for missing lanes are provided in DPR along with cost so that pipelines up to city boundary are laid on all season roads.
 - i. The electricity at head works, all pumping stations and WTP are on 24x7 mode. For this purpose, the express feeders from 11 KV or above sub stations are proposed in the DPR along with its cost.
 - j. Water hammer controlling devices are installed at proper locations for all pumping mains. The

pumping mains must be analysed for surge. Maximum negative pressure shall not be less than -0.9 Kg/cm². In cities where water is directly pumped into their distribution system, the same procedure is adopted

k. Wherever possible Break pressure tank (BPT) should be planned. The inlet and outlet of BPT should be placed at the same level.

- Ensure that the service reservoirs feeding high level areas should be separated and should be fed by separate transmission main so that only needed quantity of water is pumped to high level and energy cost is optimized.

- Ensure that an item of replacing House Service Connection (HSC) should be incorporated in the DPR as leakage occurs at joint junction of municipal pipe with HSC if ferrule connection is not made and the connection is made by the non-skilled plumber.

- Establish Consumer grievance redressal cell.

- Design Disaster (if source fails) management system for each city.

- Ensure each city has set up Non-Revenue Water (NRW) cell.

- The duration of the City-level Task Force (CTF) shall be initially for 3 years (2022-2024) and will be extended till completion of AMRUT 2.0 period. provided in DPR along with cost so that pipelines up to city boundary are laid on all season roads. ix. The electricity at head works, all pumping stations and WTP are on 24x7 mode. For this purpose, the express feeders from 11 KV or above sub stations are proposed in the DPR along with its cost.